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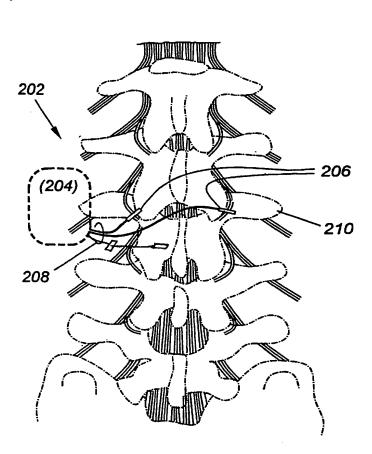
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(54) Title: NERVE STIMULATION METHOD AND APPARATUS FOR PAIN RELIEF



(57) Abstract: Methods, and apparatus are disclosed for stimulating the central, peripheral, and autonomic with particular attention being given to the medial branch (210) of the spinal nerve (212) associated with a painful spinal facet joint so as to block pain impulses from reaching the spinal cord. The preferred apparatus includes a neurostimulator (204), and two or more electrodes (206) which carry electrical pulses to the target nerves. The impluses are intense enough to cause stimulation of a given medial branch (210), and its articular branches, but not so large as to spread to the spinal cord itself. In the preferred embodiment the stimulator (204) is physically small and battery operated facilitating implantation underneath the skin. The stimulator (204) includes a controller (not shown), and appropriate electronics operative to generate electrical impulses tailored to an individual's need for appropriate pain relief in terms of pulse frequency, pulse width, and pulse amplitude. In an alternative embodiment, the stimulator (204) further includes electrodes (206), and electrical circuitry operative to monitor myoelectrical activity generated by the surrounding muscles, and modulate the impulses generated by the stimulator to meet the demands of the individual's activity and/or prolong battery life.

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